

THE LAW AND TECHNOLOGY: A STUDY ON THE IMPACT OF MODERN DIGITAL TECHNOLOGIES ON THE LEGAL SYSTEM AND ITS REGULATION

O DIREITO E A TECNOLOGIA: UM ESTUDO SOBRE O IMPACTO DAS TECNOLOGIAS DIGITAIS MODERNAS NO SISTEMA JURÍDICO E SUA REGULAÇÃO

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Abstract: This article is dedicated to the development of the state's legal system and the information society at its current stage in the conditions of digitalization. The authors identified changes and peculiarities occurring in the legal structure that affect the transformation of the state legal system in connection with the processes of globalization and digitalization. The role of legal information in the systematization and institutionalization of legislation is determined. The study employs the dialectic method, which considers digital transformation processes as general social ones. These processes are significant for society in the development of the legal frame, the role of which is becoming increasingly important nowadays. The authors applied the general scientific method of analysis, which allowed them to consider the digital transformation issues from general to specific ones, highlighting trends, current issues, and prospects for law development under the technology influence. The paper utilizes a sociological approach, whereby the legal frame acquires a private-public expression aimed at meeting the needs of society and realizing national interests. The article identifies the vectors of modern basic scientific research development in the information and legal sphere aimed at innovative development under the influence of digital technologies. Also, the trends of information and legal regulation at the stage of development of the domestic legal system are identified. First, information and legal relations are

becoming allied, i.e., regulated by different branches of law. Secondly, the legal branches use the concepts and legal instruments of law more intensively during technologization. Thirdly, regulating digital public administration is becoming a new direction in legal development, while new institutional formations are being created within the law. The study proposes to consider technologies in law as a complex process and a link for building a national legal regulation system in the context of digitalization. The conducted research expands the legal understanding of information in digital form and also the relationship between information, information technology, and digital communication channels. The formed proposals for improving legislation may be timely and relevant due to the transformation of public administration and the building of a digital economy as part of developing the information society.

Keywords: Legal frame. State regulation. Information society. Digitalization. Digital technologies. Law enforcement authorities. Legal practice.

Resumo: Este artigo é dedicado ao desenvolvimento do ordenamento jurídico estatal e da sociedade da informação em seu estágio atual nas condições da digitalização. Os autores identificaram mudanças e peculiaridades ocorridas na estrutura jurídica que afetam a transformação do ordenamento jurídico estatal em conexão com os processos de globalização e digitalização. Determina-se o papel da informação jurídica na sistematização e institucionalização da legislação. O estudo emprega o método dialético, que considera os processos de transformação digital como processos sociais gerais. Esses processos são significativos para a sociedade no desenvolvimento do marco legal, cujo papel é cada vez mais importante nos dias de hoje. Os autores aplicaram o método científico geral de análise, o que lhes permitiu considerar as questões da transformação digital desde as gerais até as específicas, destacando tendências, questões atuais e perspectivas de desenvolvimento do direito sob a influência da tecnologia. O artigo utiliza uma abordagem sociológica, em que o marco legal adquire uma expressão público-privada voltada para o atendimento das necessidades da sociedade e a realização dos interesses nacionais. O artigo identifica os vetores do desenvolvimento da pesquisa científica básica moderna na esfera informacional e jurídica voltada para o desenvolvimento inovador sob a influência das tecnologias digitais. Além disso, identificam-se as tendências da informação e da regulamentação jurídica na fase de desenvolvimento do ordenamento jurídico interno. Em primeiro lugar, a informação e as relações jurídicas estão se tornando aliadas, ou seja, reguladas por diferentes ramos do direito. Em segundo lugar, os ramos jurídicos utilizam os conceitos e instrumentos jurídicos de forma mais intensa durante a tecnologização. Em terceiro lugar, a regulamentação da administração pública digital está se tornando uma nova direção no desenvolvimento jurídico, enquanto novas formações institucionais estão sendo criadas dentro da lei. O estudo propõe considerar as tecnologias no direito como um processo complexo e um elo para a construção de um sistema de regulação jurídica nacional no contexto da digitalização. A pesquisa realizada amplia o entendimento jurídico da informação em formato digital e também a relação entre informação, tecnologia da informação e canais de comunicação digital. As propostas de aperfeiçoamento da legislação formuladas podem ser oportunas e relevantes devido à transformação da administração pública e à construção de uma economia digital como parte do desenvolvimento da sociedade da informação.

Palavras-chave: Enquadramento jurídico. Regulação estatal. Sociedade da informação. Digitalização. Tecnologias digitais. Autoridades policiais. Prática jurídica.

1. Introduction

The rapid digital transformation of legal relations and processes characterizes the modern period of information society development. The scientific and technological progress, which is based on the implementation of previously unknown methods of working with information and the use of new information technologies, has been the cause of significant changes in social development and related changes in the legal frame. The widespread dissemination and active penetration of digital communication channels have also acted as catalysts for these changes, with intensive information infrastructure development characteristic of both developed and developing countries. The network of digital communication channels continues to expand actively, covering new territories and enabling free search, retrieval, transmission, production, and dissemination of digital information.

Digitalization penetrates various spheres of human activity, creating new opportunities and conditions for legal, political, economic, social, cultural, and other aspects of human development. New fields of activity, mainly related to information, carry certain risks and threats to the system of social order and legal regulation that has been established. The information and information technologies, while stimulating positive and beneficial changes in society, create a need for the development of new perspectives and a profound scientific reevaluation of the possibilities of using virtual environments. In the modern world, special attention has been given in recent years to the issues of digital transformation of the state, improvement of legal regulation in the field of public administration, digital economy, and information security (Purnomo et al., 2022).

Another factor that significantly influences the modernization of the public legal regulation system, including in the field of management activities, is the digital economy itself.

Digitalization and technologization are not systematic, sequential, or structurally homogeneous phenomena. However, they provide significant sectoral and territorial coverage. They also pose new challenges to legal practice by blurring the perception of boundaries and spheres of influence of legal branches, which practically manifests itself in the competition of legislative and regulatory norms and the establishment of related institutions to establish mutually complementary and effective state regulation.

The country's legal system needs to timely and correctly respond to the dynamics of accelerating social relations. The digital economy has revealed areas that still need to be fully adapted to the changing order. The "lag" is associated with the lack of adequate legal mechanisms for state governance, ensuring information security, protecting intellectual property in the virtual environment and applying special legal regimes. These factors shape the relevance and importance of our study.

2. Literature Review

A significant and sound number of scholars (Adrian, 2010; Davies, Ng, 2015; Relly, 2012) note that one of the main tasks of the modern world is the formation of an information society. In other words, in a society collecting, processing, analyzing, and transmitting information (information technology) are paramount in various spheres of human activity, especially in the country's legal system. The rapid development and utilization of advanced information technologies in social, legal, political, and cultural spheres of society draw attention

to the issue of education and training of specialists capable of addressing the professional tasks posed to them in the existing information field.

According to Alsamara (2023), González-Gallego, Nieto-Torrejón & Pérez-Cárceles (2020), and Pomaza-Ponomarenko et al. (2020), the use of information technologies in law enforcement and the administration of justice is extensive. Researching any criminal situation and studying its peculiarities is now inconceivable without information technologies, which define the following directions (Cultbertson, 2005; Ruppert, 2012):

- 1) application of information technologies by law enforcement agencies in the fight against crime.
- 2) use of information technologies by criminals, criminal groups, and communities.
- 3) Legal regulation of processes related to the illegal use of information technologies.

Janicki & Goździwska-Nowicka (2018) basically define "technology" as a set of methods for processing, manufacturing, and altering the state, properties, and form of an object in the production or manufacturing process, as well as the science of influencing materials or information products through appropriate means of production. Information is a strategic product of human activity for the legal frame (D'Cunha, 2021; Leenes et al., 2017). However, with the advent of modern technical means, it has become the primary resource for scientific and technological progress and the development of the rule of law.

According to Schuster (2017), the purpose of legal regulation of the relations concerning the use of both existing and promising information technologies in solving the problems of legal and social development, improving the efficiency of public administration, as well as ensuring the information security of law enforcement agencies and courts is to create a sufficient legal basis for the fulfillment of citizens' rights, protection of public and state interests in this area.

The achievement of a synergistic effect in coordinating and harmonizing the law-making activities of the authorities, its compliance with the state policy in the field of development, and the use of information technologies should be carried out in the following areas (Pakhnenko & Kuan, 2023; Ketzler et al., 2020):

- 1) adoption of new legislative and other regulatory legal acts that fill gaps in regulation;
- 2) amendments to existing legislative and other regulatory legal acts considering the state and development of information technologies;
- 3) participation in the development of international legal documents in the field of information technologies.

In the works by Bakumov O. S. (2019) and Zubko Yu. (2019), it is mentioned that the use of information technologies in a country's legal system is necessary primarily to simplify work processes, enhance operational efficiency, and ensure effective countering of criminal activities. The effectiveness of countering a crime is determined by the level of organization in the operational, investigative, and preventive work conducted by law enforcement agencies. Naturally, the results of such work depend on the level of information support, the development of information technologies, and their full integration into law enforcement agencies, ensuring access and utilization of information technologies for any necessary case related to professional activities (Shelukhin et al., 2021).

This study is based on the papers of foreign researchers (Ana Cristina Aguilar, 2021; Bayer, Krupskiy & Bondarenko, 2020), which focus on the information society, the legal frame, and digitalization, including the digital form of information and information technology.

3. Aims

The study aims to search for optimal ways to enhance the efficiency of using information technologies in law enforcement and legal activities, legal regulation of relationships arising in the field of information technologies, and to develop practical recommendations for facilitating the implementation of information technologies into the country's legal system. Achieving the stated goal involves a series of subsequent tasks:

- 1) comprehensive analysis of the current legislation in the field of information technology application in the legal frame.
- 2) analysis of the current trends in the development of information technologies in the legal frame.
- 3) determining the level of access to information about the activities of law enforcement agencies and courts for citizens.
- 4) analysis of the impact of information technologies on citizens' legal awareness and culture as a whole.
- 5) development of proposals for improving and advancing information technologies in the legal frame.

4. Methods

In current conditions, digitization is one of the most important factors that significantly influence the law as a regulator of social relations. Implementing new digital technologies leads to changes in all spheres of life, which, in terms of their scale, resemble another technological revolution. The use of a dialectical approach in the concept of "digitization" emphasizes the comprehensive and extensive nature of the changes occurring in society under the influence of digital technologies. The new technologies not only change the basis and superstructure of society but also give rise to new previously unknown social relations and shape entire spheres of such relations, such as a country's legal system.

The emerging new scientific paradigm allows us to introduce the method of post-nonclassical scientific rationality into current research (Graham, Amos & Plumptre, 2003). This rationality significantly enriches our scientific investigation by allowing the application of new, previously unknown methods alongside classical methods of understanding the surrounding reality. It implies an interdisciplinary nature of research and even the implementation of a systemic approach.

In the current study of the peculiarities of law enforcement under digitalization, the application of constructivism as a methodology is promising. It considers all phenomena of social reality as a particular construct that arises from primary self-assertion and subsequent social amnesia. Constructivism logically complements anthropocentrism, which places the subject of law at the center of the legal frame.

As a result of the war, the process of constructing legal reality (the final result of law enforcement, which serves as a criterion for its effectiveness) depends on the actions of the subject of law, determined by its legal awareness.

The study of the impact of digitization on legislation, in general, is carried out in the context of a sociological approach to legal understanding, which views law as legal relations and norms of action. This approach helps to focus primarily on issues of legal application, particularly on the subject of legal application.

By applying dialectical and interpretative methods, the dynamics of regulating technologies, including in digital form, have been studied, as well as the right to information as a fundamental right that forms the basis for information activities. The formal and legal, logical, systemic, and structural methods allowed the authors to identify technologies' legal nature and essence within social relations digitalization.

5. Results

The impact of digitalization on social relations is determined by the essence of legal enforcement and the legal nature of digitalization. This nature is manifested in the peculiarities of digital technologies' influence on society's legal sphere. The importance of legal enforcement is determined by the fact that legal norms, which are applied in life and regulate real social relations, cannot be considered genuine law from the perspective of modern sociological and legal understanding. Adopting any legal norm is precisely to apply this norm in practice subsequently. Therefore, legal enforcement is an integral part of legal activity that logically complements law-making.

5.1. *Historical and empirical origins of law technicalization*

During the Soviet period of the development of national jurisprudence, great attention was paid to the issue of legal application. In particular, Myronova (2022) identified important aspects of legal application based on several fundamental principles:

- 1) the legal practitioner's assessment of the circumstances of the case should not diverge from the assessment of the legislator who adopted the relevant norm;
- 2) the educational significance of the act of legal application;
- 3) the legal application has a comprehensive nature;
- 4) there is a correlation between legal application and legal consciousness, which is particularly important today (Najafli, 2022).

Thus, legal science has come to recognize the defining role of the subject of the legal application, whose activities are determined by their legal consciousness and a combination of legal and non-legal factors. This aspect becomes particularly relevant in the context of legal anthropocentrism, which serves as one of the methodological foundations of this research. From the perspective of sociological jurisprudence, the subject of the legal application, when deciding a specific case related to the application of a particular legal norm, is influenced by a series of factors. These factors, reflected in the subject's consciousness, ultimately shape a specific legal decision. According to Sigfrids et al. (2022), "The application of the law by a judge could be considered a simple task that did not require any special explanations as long as it was assumed that the judge simply performed what was entrusted to him by the legislator." Thus, according to sociological jurisprudence, it is evident that the result of the influence of life factors and

circumstances related to a particular subject on their legal decision depends on their legal consciousness.

We refer to both individual and collective legal consciousness when discussing legal consciousness as a factor of effective legal application. Such legal consciousness, on the one hand, is associated with collective memory. On the other hand, it is subject to social construction, just like other phenomena of legal reality (Nemitz, 2018).

Recognizing the decisive influence of the legal consciousness of the law enforcement subject on the results of law enforcement activities leads to the thesis that any changes in the collective legal consciousness entail changes in law enforcement. In this context, the study of the impact of modern digital technologies on legal consciousness is of great importance. The scholars examining this issue argue for a significant change in psychological and mental parameters due to digitization.

For instance, Kumar et al. (2022) rightly point out that "electronic culture generates a whole range of communicative and psychological problems." This culture, unknown in previous stages of civilization development, alters human thinking itself, rendering certain mental functions practically unnecessary. The nature of decision-making is radically transformed – in the conditions of a digital society, the subject first carries out an action and only then contemplates its expediency and moral nature.

Under the influence of modern digital technologies, the so-called clip consciousness is being formed, and it is based on the superficial perception of reality fragments (Helbing, 2009). As a result, people lose text analysis skills and a comprehensive understanding of existing issues, which are essential analytical skills and abilities needed for successful legal applications. Thus, the influence of digital technologies leads to a transformation of the mentality and psyche of legal subjects, the character of thinking, and consequently, the transformation of the analysis of normative legal material in the legal application process.

The development of modern digital technologies has led to the emergence of new effective ways to influence human consciousness. With their help, it is entirely possible to induce specific actions from individuals, benefiting those who employ these technologies (Hochstetter et al., 2022; Revak & Gren, 2022). As a result, the legal knowledge of legal subjects existing in a digital environment inevitably becomes an object of manipulation. Furthermore, the formation of a digital environment is accompanied by the widespread and rapid dissemination of a new value system. Under the intense pressure of this system and the new order of social

communications, legal consciousness is forced to change. As a result, the model of legal regulation of social relations also changes, which necessarily includes the legal subject.

The social relations, in a broad sense, is the source of law. The changes in these relationships due to digitization will inevitably affect all law parameters, including legal application. When analyzing this, it is worth considering that the influence of social relations on the law is a complex process in which the state plays a vital role alongside society. Therefore, it involves a complex interaction between three elements simultaneously - the state, the law, and society, and the intensity of their development models varies depending on the specific stage of social development (Nekit, 2023).

First and foremost, with their active and widespread implementation and usage, digital technologies are changing the nature of interactions in society. The logic of networked interaction dictated by digitization endows social development with previously unknown flexibility. It allows social institutions and processes to easily and quickly adapt to the emerging new reality.

Furthermore, digitization affects individuals as legal subjects by creating a new information space. Under the pressure of vast amounts of new information that constantly bombards them and digital means of perception and utilization, individuals transform into "networked" individuals. It changes the structure of factors influencing them while making legal decisions during legal applications. These new technologies form "a whole world of behavioral patterns that constantly, daily at work and home, surround people and program their activities on an ever-increasing scale" (Rosenberg, 2022).

5.2. *The law and modern digital technologies: an interaction field*

The subject of law enforcement, while performing a social function, is always a human being. Human nature determines the inevitable presence of irrational motives in behavior and decision-making. Decisions made in the legal sphere are influenced not only by reason and logic but also by sacred beliefs, magic, and mysticism (Zhang, Zhao, Wan, Yao, 2021). Digital reality does not eliminate irrational elements in the behavior of legal subjects but instead influences these elements, replacing one set of myths, beliefs, and rituals with another. Legal practitioners operate within the field of law while also participating in other social interactions, fulfilling multiple social roles, and, in this capacity, are susceptible to the influence of existing societal beliefs, religious notions, and myths. Digitization contributes to the emergence of new myths, rituals, and conceptions, including those related to virtual reality, and their widespread

dissemination through social networks (Makedon et al., 2022). All of this inevitably changes the system of views and beliefs that motivate the behavior of legal subjects.

Digital technologies, which alter the surrounding reality and introduce a rapid flow of information into human life, often evoke not only an expected adaptive response from members of society but also an opposite reaction - a desire to protect oneself, one's mind, and psyche from these new technologies. Gebeyehu and Twinomurinzi (2022) noted that the modern information society emphasizes the significance of everyday life for the legal environment. Individuals want to safeguard their everydayness and defend their right to live as they wish, despite the pace of information flows and digital temptations. "Individuals anchor themselves in everydayness to avoid being carried away into an unfamiliar, artificially created world that deviates from their inherent nature." This striving can also be a significant motivating factor for legal subjects, especially if they do not fit into the new digital reality.

A critical aspect of the interaction between law and society is the legitimation of law. It should be considered not only as a system of norms but also more broadly. The construction of legal reality involves three stages, and the creation of norms through a system of signs is just one of them. Equally important are the other two stages: forming mental images and implementing legal provisions in people's everyday actions, primarily legal subjects vested with the authority to enforce legal norms. Therefore, the law can be seen as legitimate only if both the norms themselves and the legal decisions based on them are recognized as such.

Society's legitimization "occurs naturally through accepting the innovation produced by the ruling elite and the reference group" (Janssen et al., 2018). Society acknowledges the laws imposed upon it, expresses consent to abide by them, and does not resist punishing those violating them. The application of legitimate laws is naturally perceived as a legitimate act that contributes to the strengthening of the existing legal order (Al-Besher, Kumar, 2022).

In essence, the legitimacy of law signifies society's trust in the law, including its legal mechanisms: "The trust (legitimacy) is a state of legal consciousness and legal order where the legal institutions that exist today become recognized" (Mostert & Yeoh, 2022).

The existence of an institution over a long period indicates its legitimacy and the trust placed in it. As a legal entity, the court gains legitimacy through its long-standing existence. The mere existence of a court raises no questions, as society has long been accustomed to this institution, considering it a natural element of the legal framework and a branch of state power.

Trust in the law is an inherent aspect of the legal frame, which "includes consent regarding the social (and functional) significance of a certain behavioral variant, its acceptance at

the level of both establishment and behavior" (Ana Cristina Aguilar, 2021). It is crucial to include trust in the mechanism of reproducing legal reality.

Trust in the law implies the expectation of predictable actions from legal subjects. In systems with a precedent-based judiciary, the degree of predictability of legal acts is significantly higher. In the world, judicial practice in similar cases often varies, which, on the one hand, falls within the framework of judicial discretion, but on the other hand, hinders its legitimation.

As mentioned above, the legal frame exists within society and cannot be independent of it. It is part of the mechanism that reproduces law as an important element of constructing social reality, and therefore, this mechanism has historical and sociocultural contexts (Alsamara, 2023). The historical context is more stable and less prone to change. As for the sociocultural context, it is more dynamic and depends on external factors. In modern times, digitization emerges as a significant factor that alters the sociocultural context of legal implementation. Essentially, new digital technologies shape a context that can be referred to as a digital context.

Digitization inevitably changes the stereotypes of mass behavior, which, in turn, is one of the stages and conditions for constructing legal reality. Any action aimed at applying legal norms is inevitably grounded in existing legal traditions but also contains an element of innovation. Digitization shifts the focus from tradition to innovation, increasing the level of innovation in legal sphere actions.

One of the conditions for the legitimacy of the law is the adoption of proper procedures. As Sigfrids et al. (2022) rightly stated, "the positive law is legitimate not because it complies with substantial principles of justice but because it is established through fair, i.e., democratic in structure, procedures." For a law to be legitimate and fair, it requires the trust of society members to the following:

- 1) the existing legislative procedures;
- 2) specific individuals engaged in legislative activities;
- 3) the existing legal mechanism;
- 4) specific legal subjects.

The procedures for adopting and implementing legal norms involve a particular discursive communication that helps legal subjects overcome subjective views to reach an informed consensus. The outcome of legal application depends not only primarily on the content of the applied norms but also on the chosen procedure for legal application and the ability of legal subjects to achieve necessary consensus, aligning their specific actions within the framework of the established collective legal objectives.

The significance of procedure in law necessitates giving particular importance to legal technique. It forms the basis for procedural forms that are typical of both legislation and legal application. However, the presence of a legal technique and its correct (established) use does not guarantee legitimate and justified legal application. Any legal technique's practical expression (result) depends on the subject using it. Therefore, even strict adherence to the rules of legal technique does not guarantee protection against errors.

Legal technology can be seen as an attempt to bring the activities of legal subjects within rational boundaries and minimize the irrational component of these activities. Alongside established legal procedures, legal technology allows for the predictability of legal application and legitimizes its outcome to a certain extent. With the digitalization of law, legal technology undergoes significant changes. Moreover, its meaning may change in the future, which is related to such a predictable form of law as a digital law.

5.3. *Digital rights and digital law*

Digital law (a new form of legal act existing in electronic format) is a flexible tool for regulating social relations. Its model should be based on an effective combination of general and mandatory rules of conduct, with the ability to customize them to specific cases and subjects.

By having a digital form, this source of law is expected to become interactive, based on a mechanism for changing legal norms through electronic crowdsourcing. Only in this case can a new law successfully fulfill its tasks, including effectively regulating relationships in the virtual space (Mostert & Yeoh, 2022).

Digital law has the potential to change the perception of legal techniques significantly, but its implementation can negatively impact the legitimacy of the law, which will inevitably affect the legal application. However, the most significant challenge jurisprudence needs to address in implementing digital law is the practical realization of its norms.

The flexible and adaptive nature of digital law necessitates the creation of equally flexible mechanisms and means of legal enforcement. These mechanisms will be based on principles of self-regulation, the choice of authoritative arbitrators by the parties involved, and the independent nature of their activities. The emergence of such mechanisms is now possible considering technologies such as blockchain. As a system of dispersed data whose reliability is guaranteed by the structure, the blockchain enables the conclusion of smart contracts. The initial steps taken in this direction by participants in social relations show promising prospects for

smart contracts to play an essential role in the legal application system, especially in the field of economy.

Another direction of the impact of digital technologies on legal applications is related to the automation and algorithmization of the legal sphere. The implementation of digital technologies in legal enforcement involves the use of robots and artificial intelligence, which raises the question of legal algorithms. This question was raised long before the precise contours and possibilities of digitization emerged. American sociologist D. Bell, who formulated and substantiated the concept of the post-industrial era, considered the "replacement of intuitive reasoning with algorithms" as one of its main characteristics (Reilly, 2012).

By its nature, the legal application cannot always be carried out within strict algorithms. The gaps exist in the law, and any social interaction is multifaceted, allowing for different and sometimes ambiguous assessments. In this regard, the opinion of Kumar et al. (2022) seems justified: any norm contained in legislation or judicial precedent can be successfully applied in a large number of cases, but sooner or later, there will be a situation where these norms become undefined, and their application becomes doubtful (Ketzler et al., 2020). The legal application algorithmization of law enforcement proves to be powerless in such cases (there are many of them in legal practice).

However, with the development of digital technologies, legal algorithmization with forecasting has become a reality. In current conditions, robots already draft lawsuits and other legal documents. In some cases, they act as judges, becoming subjects of legal application. This experience already exists in China and Latvia, where the legal activities of robots are legislatively regulated. Without appropriate algorithms, such activities would be impossible. The need to rely on existing legislation in the legal application process raises questions about digital legal texts and their interpretation.

However, such texts require their translation into a digital form since machines understand information composed of only two digits: zero and one. Thus, if legal norms were previously based on written characters, the need for algorithmization of these norms and their conversion into electronic form implies replacing them with digital symbols, in simpler terms, numbers. It will facilitate the application of the law by robots but may complicate the traditional legal activities of humans as the main subjects of legal application, as humans perceive the literal, rather than numerical, symbols in legal texts. The emergence of robots as new subjects of legal application can significantly complicate human legal activities. The emergence of a new subject

of legal application, the robot, poses a series of theoretical, methodological, and practical problems.

Firstly, the legal application process cannot be algorithmized entirely since written law never contains "all the information necessary to resolve a specific case or situation" (Zubko, Yu. 2019). Therefore, it is impossible to completely exclude humans from the legal application process, as they are capable of interpreting legal norms to fill gaps and adapt abstract norms to specific situations. This entails the task of organizing the interaction between humans and robots in legal activities, which requires a combination of algorithmic artificial intelligence and creative intuition.

Secondly, as subjects of legal application, humans have a special legal status and, in some cases, bear legal responsibility for their actions. The status of a robot as a legal applicator has not yet been defined. Moreover, defining this status faces problems of a fundamental nature, as it involves attributing particular legal subjectivity to robots.

Legislative initiatives already aim to recognize registered robot agents as subjects of civil law. However, these initiatives are met with reasonable objections, including the fact that robots lack mentality and the concept of fault as a psychological attitude of a person towards their actions does not apply to them. Without guilt, there is no delictual capacity, which is an integral part of legal personality. The question of possible legal responsibility in the case of endowing a robot as a legal applicator with legal subjectivity remains open.

Contemporary scholars rightly emphasize the potential expansion of situations in which robots make decisions directly related to applying the law, affecting the emergence of certain rights and obligations for individuals. These situations are not only related to using robots as judges who issue binding decisions regarding applying legal norms in specific situations. The robots can also make decisions regarding the provision of public services, the forced withdrawal of funds from citizens' accounts, and so on (Kozmenko, Korneyev, Makedon, 2014).

5.4. Technology influences vectors and legal relations

Digitalization affects law enforcement both directly and indirectly, influencing its auxiliary parameters and contributing to the efficiency of legal enforcement activities. The creation of such a system will help with the following:

- to facilitate the organization of record-keeping in agencies involved in the implementation of legislation;
- to enhance the effectiveness of actions in the criminal procedural sphere;

- to ensure a higher level of transparency and legality in the actions of law enforcers.

This system is expected to be based on the aforementioned blockchain technology, which is very convenient from the point of view of protecting data from hacker attacks (Zuiderwijk, Chen, Salem, 2021).

Another aspect of the researched problem is related to the fact that when used correctly and actively, digital technologies can facilitate the adoption and implementation of legal decisions. The automation of legal proceedings and the use of artificial intelligence can both reduce the number of required junior lawyers (whose work is often poorly paid) and allow for more reasoned decision-making, reducing the time needed for such decisions. Furthermore, these technologies can improve citizens' access to justice, ultimately leading to more efficient legal enforcement.

Digital technologies also impact the use of legal evidence. New types of evidence and methods of their fixation emerge. Digital (electronic) signatures have become highly significant in civil and arbitration processes, as they can be used to authenticate agreements. Moreover, a civil contract is created and signed using electronic computing technology and a digital (electronic) signature. In that case, the parties to this contract can submit evidence to the arbitration court regarding a dispute arising from this contract, certified by a digital (electronic) signature (Pakhnenko & Kuan, 2023).

In the case of digitalization, the role of notaries undergoes changes. On the one hand, the scope of notarial activities expands due to the need to perform certain notarial acts online. Citizens increasingly turn to notary offices to record a website's content (Bakumov, O. S., 2019). The court accepts such notarized records as evidence. On the other hand, the development of blockchain technology may render the activities of notaries unnecessary. Blockchain can serve as a guarantee for rights to digitally circulated assets, particularly intellectual property. Through this technology, it becomes feasible to transfer rights to securities and even real estate.

Moreover, according to bold predictions, blockchain can become the basis for the circulation of any assets, ensuring the guarantee of transactions conducted through smart contracts, thus eliminating the need for notarization. Automatically executed contracts can solve problems such as non-compliance with obligations, non-payment, and contract falsification. Furthermore, they can even eliminate the need to apply the law itself, thereby significantly reducing the scope of legal enforcement (D'Cunha, 2021).

The world's digitalization transformation inevitably creates a contradiction between existing law, including the legal enforcement system, and rapidly evolving social relations in new

spheres and content. In these circumstances, it is advisable to place little hope on improving legal enforcement activities to strengthen the legal order further and enhance the legal culture of the population.

Therefore, recognizing the vital role of law enforcement in constructing social reality, let us note that it is only a part of the construction process and a relatively conservative one. Given the need to improve law enforcement mechanisms, it will inevitably lag behind the pace of development in modern digital society. The more pronounced this lag becomes, the higher the probability of the emergence of another non-legal regulator based on digital technologies, which will be much more flexible than the law. As a result of the emergence of this new regulator, the law will remain. It will continue to play an essential role in shaping social relations. However, its power and sphere of influence may significantly diminish.

6. Discussion

An essential feature of the current stage of information technology implementation is the strict enforcement of the Constitutional rights of citizens to information and the protection of information on private life (personal data). Great importance is attached to the computerization of law enforcement activities and strict adherence to the principle of legality in the use of technical means and information technologies, especially in detective and investigation activities.

The challenge of information security is currently of the greatest interest to both law enforcement agencies and courts. It is a complex issue that requires a combination of legislative, organizational, software, and technical measures. The legislation needs to be improved in a timely and effective manner. There is a huge shortage of highly qualified personnel for the implementation of information technology and information security.

Considering the complex problems mentioned above, we believe that the following steps are necessary for their resolution:

- 1) to develop unified legal, methodological, programmatic, and technical approaches for organizing a unified information support system for each state and law enforcement agency;
- 2) to create unified systems for accessing databases of collective use for forensic, operational-reference, investigative, and other information, allowing each government agency to utilize databases from other agencies and perform activities based on query directions;

- 3) to ensure a systematic transition to paperless technologies for collecting, processing, storing, and transmitting information, including electronic criminal cases;
- 4) to improve the legal, organizational, and technical support of measures to strengthen personal information protection and data regime;
- 5) to improve the funding of law enforcement agencies and courts for the procurement of quality equipment and modern software;
- 6) to consider the possibility of enhancing the training process for law enforcement personnel and court officials specializing in the field of information technology and information security.

7. Conclusion

The conducted research indicates that digitization is an influential factor influencing the dynamics of social relations and, as a result, the nature and ways of constructing social reality. As an essential part of such construction, legal application in the context of digitization inevitably changes a range of its formal and essential characteristics.

The main directions of the impact of modern digital technologies on legal applications can be identified as follows:

- 1) the subject of the legal application, which applies current legal norms, plays a vital role in legal practice, relying on their legal consciousness and being influenced by various factors. Digitization alters the mindset of the legal subject and affects their legal consciousness, which inevitably reflects in the process and results of legal application;
- 2) digital technologies can significantly change existing perceptions of legal techniques. Moreover, an anticipated digital law that replaces traditional law may eliminate the need for legal techniques altogether;
- 3) digital technologies contribute to the increasingly active use of algorithms, machine-generated text, and artificial intelligence in the legal sphere. The issue of using robots as judges is becoming practical, leading to their status as subjects of law enforcement. This situation raises theoretical and legal discussions about legal subjectivity and the prospects for its development in the field of legal application;
- 4) digitization affects auxiliary aspects of the legal application, including existing legal procedures, types of court evidence, and methods of their presentation, as well as the nature and content of notarial activities;

- 5) there is a tendency to displace law from certain types of social relations, as today, it is already possible to carry out certain legal acts and fulfill obligations outside the legal field using blockchain technology and smart contracts. In the long run, digital technologies can fundamentally change the significance of law within the system of regulators of social relations, diminish the role of legal regulation, and, consequently, the importance of legal application activities.

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